

## TALBOT FOREST SCENIC RESERVE PLANT LIST

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Talbot Forest Scenic Reserve protects the largest area of un-logged podocarp-hardwood forest on the downlands of South Canterbury. It covers approximately 26 ha at the western edge of Geraldine. The core of the reserve was first gazetted in 1886. It is administered by the Department of Conservation.

The reserve lies on moderately steep slopes, ranging in altitude from approximately 120 m at its eastern (Geraldine) boundary to approximately 190 m at its western edge on the Geraldine Downs. Small ephemeral streams drain the centre of the reserve and a larger stream flows through the southern edge of the reserve.

The underlying rock of the reserve is Geraldine basalt (Cox & Barrell 2007). This rock is covered at most parts of the reserve by a deep layer of loess (wind-blown silt). A small area of alluvial terrace lies within the southern part of the reserve (adjacent to Hislop Street). Annual precipitation at the reserve is approximately 750 mm.

Talbot Forest Scenic Reserve lies at the eastern edge of Geraldine Ecological District, within Pareora Ecological Region (McEwen 1987). It also lies in the “Downlands of South Canterbury and North Otago” (N3.1a) Level IV Land Environment (Leathwick et al. 2003), an “acutely threatened” Land Environment (Walker et al. 2005).

The Scenic Reserve supports areas of unlogged podocarp-hardwood forest at its core and regenerating indigenous forest at its margins (Fig. 1). Indigenous



**Figure 1** Talbot Forest Scenic Reserve, December 2012.

vegetation has been planted at some of these reserve edges; at other locations the reserve edges support a number of naturalized exotic species.

All indigenous vascular plant species (except naturalised grasses and smaller herbs) recorded from a December 2012 survey and from an earlier (1971) survey of the reserve (Kelly 1972) are listed (Table 1, page 83). Naturalised species are indicated with an asterisk. Plant species names follow de Lange & Rolfe (2010) for indigenous species and Webb et al. (1988) and Popay et al. (2010) for naturalised plants.

Ninety-one indigenous vascular plant species were recorded during this 2012 survey of Talbot Forest Scenic Reserve. Species recorded are three podocarp trees, 18 hardwood trees, 17 shrubs, 13 climbers, two mistletoes, 19 ferns, five sedges/rushes, two grasses, one orchid and 11 herb species. Three of these species appear to be naturalised at the reserve: gossamer grass (*Anemanthele lessoniana*), karamu (*Coprosma robusta*) and lacebark (*Hoheria sexstylosa*).

Five other indigenous plant species were recorded during a 1971 survey of the reserve (Kelly 1972): one climber (*Parsonia capsularis*), two herbs (*Haloragis erecta* and *Lemna minor*), one orchid (*Pterostylis graminea*) and one fern (*Hypolepis millefolium*).

Eighteen plant species recorded during this 2012 survey were not recorded by Kelly in 1971, including two trees, two climbers, four shrubs or shrub hybrids, six ferns and four other species. Notable species among these are *Blechnum membranaceum* (Fig. 2), not recorded previously in South Canterbury, and the at risk *Brachyglottis sciadophila* (de Lange et al. 2013).



**Figure 2** *Blechnum membranaceum*, Talbot Forest Scenic Reserve, December 2012.

Differences in the plant species recorded between these two surveys is likely to be due to differences in survey effort (Kelly spent only four hours at the reserve) and changes to the plant communities over the forty-year period between surveys. Species recorded by Kelly but not observed during this 2012 survey may still be present, but simply overlooked during this survey.

The number of plant species present in the reserve (90+) compares favourably with the number of plant species present at other areas of indigenous vegetation on the Geraldine Downs, as expected for a protected site containing original forest. The most diverse site surveyed during Significant Natural Area (SNA) assessments on the Geraldine Downs supports 66 indigenous vascular plant species, though SNA surveys were not as thorough as this survey of Talbot Forest. The average number of indigenous vascular plants at the 35 Geraldine Downs SNAs is 27.

Talbot Forest Scenic Reserve supports a number of locally uncommon species. Five species recorded in the 2012 survey have not been recorded in SNAs on the Geraldine Downs: *Australina pusilla*, *Blechnum membranaceum*, *Hypolepis rufobarbata*, *Lastreopsis glabella*, and *Nematoceras trilobum*. Two species have been recorded at only one other Geraldine Downs SNA: *Hypolepis millefolium* and *Microlaena avenacea*. Four species have been recorded at only two other SNAs: *Blechnum chambersii*, *Coprosma rubra*, *Pyrrosia eleagnifolia*, and *Ripogonum scandens*.

Identification of two Talbot Forest species was confirmed by Landcare Research staff at Lincoln (Allan Herbarium): the fern, *Blechnum membranaceum* (Plant ID No. 2012/0361), and a new *Berberis* naturalisation record in the *Berberis congestiflora* group (Plant ID No. 2011/0944).

Indigenous forest at Talbot Forest Scenic Reserve is the largest and most intact remnant in the lower rainfall zone (600 to 800 mm per annum) in South Canterbury. Other important indigenous forest remnants occur in the South Canterbury foothills, notably Peel Forest Park Scenic Reserve and Station Stream (Orari Gorge Station). However, annual precipitation at those locations is more than 1000 mm.

### **Acknowledgements**

Funds for the 2012 survey of Talbot Forest were provided by the Department of Conservation (Lorraine Cook) and Timaru District Council (Mark Geddes). Ines Schönberger (Landcare Research), Jon Sullivan (Lincoln University), Nick Head (DoC), Colin Meurk (Landcare Research), Ines Stager and Peter Keller provided information about the location and identity of plant species at Talbot Forest. Colin Burrows provided helpful comments on an earlier draft. I thank these people for their assistance.

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**Table 1** All indigenous vascular plant species (except naturalised grasses and smaller herbs) recorded from a December 2012 survey and from a 1971 survey (Kelly 1972) of Talbot Forest Scenic Reserve. Naturalised species are indicated with an asterisk.

<b>Scientific name</b>	<b>Common name</b>	<b>Notes/Distribution</b>
<i>Acaena anserinifolia</i>	bidibid	forest and track edges
<i>Acer pseudoplatanus</i> *	sycamore	patchy, throughout
<i>Anemanthele lessoniana</i> *	gossamer grass	one plant, NW corner (naturalized native)
<i>Aristotelia serrata</i>	wineberry	damper sites, throughout
<i>Asplenium appendiculatum</i>		throughout
<i>Asplenium bulbiferum</i>	hen and chickens fern	uncommon, possibly only hybrids
<i>Asplenium flabellifolium</i>	necklace fern	forest and track edges
<i>Asplenium flaccidum</i>	hanging spleenwort	uncommon (mostly hybrids)
<i>Asplenium gracillimum</i> agg.		abundant, throughout
<i>Asplenium hookerianum</i>		throughout
<i>Asplenium richardii</i>		uncommon, throughout
<i>Asplenium</i> x <i>Asplenium</i>	hybrid asplenium	several forms, throughout
<i>Astelia fragrans</i>	bush lily	throughout
<i>Australina pusilla</i>		southern terrace, track edges
<i>Berberis congestiflora</i> * (?)		one plant, first naturalisation record in New Zealand
<i>Berberis darwinii</i> *	Darwin's barberry	occasional, throughout
<i>Betula pendula</i> *	silver birch	forest margins (planted?)
<i>Blechnum chambersii</i>		rare, damp gullies
<i>Blechnum fluviatile</i>		throughout
<i>Blechnum membranaceum</i>		rare, gullies, first record from South Canterbury
<i>Brachyglottis repanda</i> *	rangiora	1971 only (planted?)
<i>Brachyglottis sciadophila</i>		rare, NW corner, track edges (at-risk species)

<i>Calystegia tuguriorum</i>	native convolvulus	abundant, throughout
<i>Calystegia silvatica</i> *	great bindweed	occasional, forest edges
<i>Cardamine debilis</i> agg.	cardamine	throughout
<i>Carex forsteri</i>	sedge	throughout
<i>Carex solandri</i>	sedge	throughout
<i>Carpodetus serratus</i>	marbleleaf	damp slopes
<i>Clematis foetida</i>		throughout
<i>Clematis paniculata</i>	clematis	rare, southern terrace
<i>Clematis vitalba</i> *	old man's beard	rare, NW corner
<i>Coprosma areolata</i>		throughout
<i>Coprosma crassifolia</i>		throughout
<i>Coprosma propinqua</i> agg.	mingimingi	mostly at forest edges
<i>Coprosma propinqua</i> x <i>robusta</i>		throughout
<i>Coprosma rhamnoides</i>		uncommon
<i>Coprosma robusta</i> *	karamu	occasional, throughout (naturalised native)
<i>Coprosma rotundifolia</i>		throughout
<i>Coprosma rubra</i>		rare, southern terrace
<i>Cordyline australis</i>	ti/cabbage tree	throughout
<i>Crataegus monogyna</i> *	hawthorn	forest edges
<i>Cytisus scoparius</i> *	broom	forest edges
<i>Dacrycarpus dacrydioides</i>	kahikatea	older forest throughout
<i>Dryopteris filix-mas</i> *	male fern	throughout
<i>Elaeocarpus hookerianus</i>	pokaka	older forest throughout
<i>Euchiton audax</i>	creeping cudweed	forest edges
<i>Euonymus europaeus</i> *	spindle tree	throughout
<i>Fraxinus excelsior</i> *	ash	mostly at forest edges
<i>Fuchsia excorticata</i>	fuchsia	throughout
<i>Fuchsia excorticata</i> x <i>perscandens</i>	hybrid fuchsia	throughout
<i>Fuchsia perscandens</i>	scrambling fuchsia	throughout
<i>Genista monspessulana</i> *	Montpellier broom	forest edges, Davies Street, Tripp Street

<i>Glechoma hederacea</i> *	ground ivy	one patch, Totara St track entrance
<i>Griselinia littoralis</i>	broadleaf	throughout
<i>Haloragis erecta</i>	toatoa	1971 only
<i>Hebe salicifolia</i>	koromiko	planted
<i>Hedera helix</i> *	ivy	throughout
<i>Hoheria angustifolia</i>	narrow-leaved lacebark	older forest throughout
<i>Hoheria sexstylosa</i> *	lacebark	naturalized from plantings
<i>Hydrocotyle heteromeria</i>	pennywort	damper sites, throughout
<i>Hydrocotyle moschata</i>	hairy pennywort	throughout
<i>Hydrocotyle novae-zelandiae</i>	pennywort	throughout
<i>Hypolepis ambigua</i>		throughout
<i>Hypolepis millefolium</i>	thousand-leaved fern	1971 only (may be <i>H. rufobarbata</i> ?)
<i>Hypolepis rufobarbata</i>		rare, southern terrace
<i>Ileostylis micranthus</i>	mistletoe	occasional, throughout
<i>Iris foetidissima</i> *	stinking iris	throughout
<i>Juncus articulatus</i> *	jointed rush	damper sites
<i>Juncus edgariae</i>		damper sites
<i>Juncus effusus</i> *	soft rush	damper sites
<i>Korthalsella lindsayi</i>	dwarf mistletoe	rare, southern reserve margin
<i>Lastreopsis glabella</i> agg.		throughout
<i>Lemna minor</i>		1971 only
<i>Leptospermum scoparium</i>	manuka	planted
<i>Libertia ixioides</i>		occasional, throughout
<i>Lonicera japonica</i> *	Japanese honeysuckle	forest edge Totara Street
<i>Lophomyrtus obcordata</i>	rohutu	throughout
<i>Mahonia</i> sp.*		southern terrace, one plant (removed)
<i>Melicope simplex</i>	poataniwha	throughout

<i>Melicytus micranthus</i>	shrubby mahoe	older forest throughout
<i>Melicytus ramiflorus</i> agg.	mahoe	throughout
<i>Melicytus ramiflorus</i> x <i>micranthus</i>	hybrid mahoe	older forest throughout
<i>Metrosideros diffusa</i>	white climbing rata	throughout
<i>Metrosideros umbellata</i>	southern rata	planted
<i>Microlaena avenacea</i>	bush rice grass	southern terrace, track edges
<i>Microsorium pustulatum</i>	hound's tongue fern	throughout
<i>Muehlenbeckia australis</i> agg.	pohuehue	abundant, throughout
<i>Muehlenbeckia complexa</i> agg.	scrub pohuehue	occasional throughout
<i>Myrsine australis</i>	mapou	throughout
<i>Myrsine divaricata</i> agg.	weeping mapou	rare, southern terrace
<i>Nematoceras trilobum</i> agg.	spider orchid	rare, southern terrace
<i>Nothofagus fusca</i>	red beech	planted
<i>Nothofagus solandri</i>	black beech	planted
<i>Parsonsia capsularis</i>	native jasmine	1971 only (may be <i>P. heterophylla</i> ?)
<i>Parsonsia heterophylla</i>	native jasmine	throughout
<i>Passiflora mollissima</i> *	banana passionfruit	rare, NW corner
<i>Pellaea rotundifolia</i>	button fern	throughout
<i>Pennantia corymbosa</i>	kaikomako	older forest
<i>Pittosporum eugenioides</i>	tarata/lemonwood	throughout
<i>Pittosporum tenuifolium</i>	matipo	throughout
<i>Plagianthus regius</i>	lowland ribbonwood	planted
<i>Podocarpus totara</i>	totara	throughout
<i>Polystichum neozelandicum</i>	common shield fern	throughout
<i>Polystichum vestitum</i> agg.	prickly shield fern	throughout
<i>Potentilla indica</i> *	Indian strawberry	track edges
<i>Prumnopitys taxifolia</i>	matai	throughout
<i>Prunus cerasifera</i> *	cherry plum	occasional, throughout



<i>Prunus lusitanica</i> *	Portugal laurel	forest edge Totara Street
<i>Pseudopanax arboreus</i>	five-finger	throughout
<i>Pseudopanax crassifolius</i>	lancewood	uncommon
<i>Pseudowintera colorata</i>	horopito	occasional, throughout
<i>Pteridium esculentum</i>	bracken	mostly at forest edges
<i>Pterostylis graminea</i>	orchid	1971 only
<i>Pyrrosia eleagnifolia</i>	leather-leaf fern	rare, forest canopy
<i>Ripogonum scandens</i>	supplejack	throughout
<i>Rubus cissoides</i> agg.	bush lawyer	throughout
<i>Rubus fruticosus</i> agg.*	blackberry	throughout
<i>Rubus schmidelioides</i>	lawyer	occasional, throughout
<i>Rubus squarrosus</i>	leafless lawyer	throughout
<i>Sambucus nigra</i> *	elderberry	throughout
<i>Schefflera digitata</i>	pate	throughout
<i>Senecio glomeratus</i> agg.		forest edges
<i>Solanum chenopodioides</i> *	velvety nightshade	throughout
<i>Solanum dulcamara</i> *	bittersweet	throughout
<i>Solanum laciniatum</i>	poroporo	forest edges
<i>Solanum nigrum</i> *	black nightshade	forest edges
<i>Sophora microphylla</i>	kowhai	throughout
<i>Sophora tetrapetala</i>	North Island kowhai	planted
<i>Sorbus aucuparia</i> *	rowan	throughout
<i>Stellaria parviflora</i>		track edges
<i>Streblus heterophyllus</i>	turepo	abundant, throughout
<i>Taxus baccata</i> *	yew	rare, southern terrace
<i>Tropaeolum speciosum</i> *	Chilean flame creeper	throughout
<i>Ulex europaeus</i> *	gorse	forest edges
<i>Ulmus x hollandica</i> *	elm	occasional, mostly forest edges
<i>Uncinia uncinata</i>	hookgrass	throughout
<i>Urtica incisa</i>	nettle	throughout